CLAIMS

1. A method for manufacturing an integrated circuit comprising a nonvolatile memory, the method comprising:

forming a first layer comprising silicon, the first layer being to provide one or more floating gates for the nonvolatile memory;

nitriding a surface of the first layer to incorporate nitrogen atoms into said surface;

forming a first dielectric at the nitrided surface, wherein forming the first dielectric comprises forming silicon oxide at the nitrided surface;

forming a conductive layer separated from the nitrided surface by the first dielectric, the conductive layer providing one or more control gates for the nonvolatile memory.

2. The method of Claim 1 wherein forming the silicon oxide at the nitrided surface comprises forming the silicon oxide by thermal oxidation.

3. The method of Claim 1 wherein the surface of the first layer is a polysilicon surface.

4. An integrated circuit manufactured by the method of Claim 1.

5. An integrated circuit comprising a nonvolatile memory cell:

a channel region;

a first dielectric on a surface of the channel region;

a conductive floating gate on the first dielectric, the floating gate having a surface which has silicon and nitrogen atoms therein;

silicon oxide formed at said surface of the floating gate;

a conductive control gate opposite to said surface of the floating gate.

6. The integrated circuit of Claim 5 further comprising a second dielectric between said surface of the floating gate and the control gate.

7. A method for manufacturing an integrated circuit comprising a nonvolatile memory, the method comprising:

forming a first layer to provide one or more floating gates for the nonvolatile memory;

forming a first dielectric on a surface of the first layer, wherein the first dielectric comprises a first surface comprising silicon oxide;

nitriding the first surface of the first dielectric to incorporate nitrogen atoms into the first surface;

forming a conductive layer on the nitrided first surface of the first dielectric, the conductive layer providing one or more control gates for the nonvolatile memory.

8. An integrated circuit manufactured by the method of Claim 7.

9. An integrated circuit comprising a nonvolatile memory cell comprising:

a channel region;

a first dielectric on a surface of the channel region;

a conductive floating gate on the first dielectric;

a second dielectric on a surface of the floating gate; and

a conductive control gate separated from the floating gate by the second dielectric;

wherein the second dielectric comprises a layer of silicon oxide having a surface having nitrogen atoms embedded therein; and

the control gate contacts said silicon oxide surface with nitrogen atoms.